Experiment Cruise to Examine Gear Performance with Offset Warps

- September 24-27, 2002
 - Video & Mensuration work completed on September 25-26
- Six Industry Participants
 - Bud Fernandes
 - Stephen Lee
 - James Lovgren
 - Sam Novello
 - James Odlin
 - Matthew Stommel

Trawl Warp Experiment

- Two Primary Objectives
 - Provide initial qualitative observations of the effects of offset warps on net geometry and fishing gear performance
 - Provide a quantitative evaluation of the effects of offset warps on net wingspread, door spread and head rope height

Experimental Approach

- Intentional Manipulation of Trawl Warp Lengths
 - Even Warps
 - Starboard and port offsets of 0, 2, 4, 6, 12, 18 feet
- Qualitative Evaluation of Trawl Performance through Video Observation
 - Net shape and geometry
 - Roller and foot gear tending
 - Fish behavior
- Quantitative Evaluate of Trawl Geometry through Net Sensor Measurements
 - Wing Spread
 - Door Spread
 - Headrope Height

Video Camera -

Headrope Sensor (Simrad ITI)

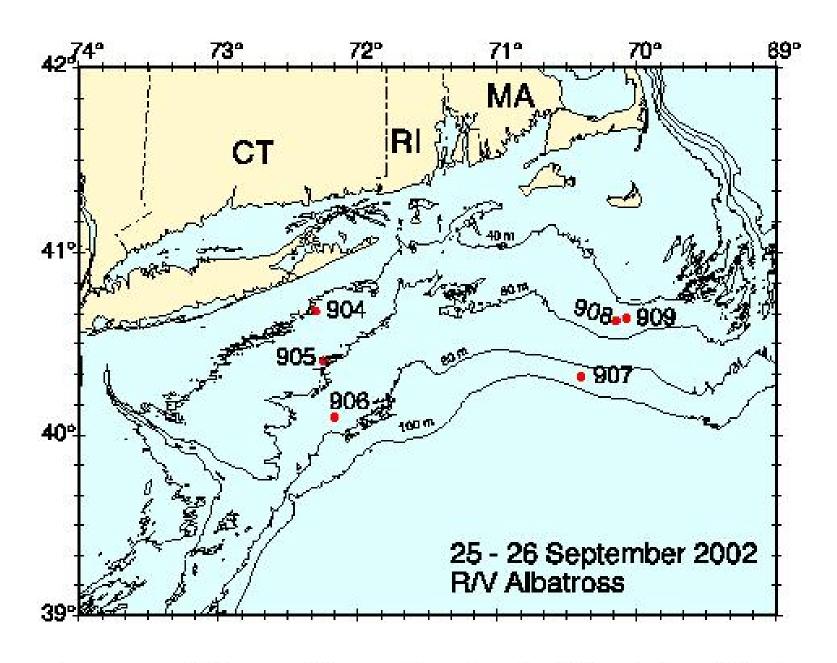


Video Camera

Wing Spread Sensor (Simrad ITI)







Locations of Video and Sensor Experiments of Trawl Warp Offsets

Video Images & Sensor Data

Water Depth (m		Starboard Longer				Even Warps	Port Longer
25 - m	Poor Visibility					Even	Poor Visibility
45 - m			6-ft		2-ft	Even 2-ft	6-ft 12-ft
51 - m	Wi	ng Can	nera I	Peploy	ment	– Full Sen	sors, Limited Video
52 - m		12-ft	6-ft	4-ft	2-ft	Even 2-ft	4-ft 6-ft 12-ft
60 - m		12-ft	6-ft	4-ft	2-ft	Even 2-ft	4-ft 6-ft 12-ft
71 - m		12-ft	6-ft	4-ft	2-ft	Even 2-ft	4-ft 6-ft 12-ft
92 - m	18-ft	12-ft	6-ft	4-ft	2-ft	Even 2-ft	4-ft 6-ft 12-ft 18-ft

Video Images Collected

Roller Sweep

Starboard Corner and Wing

Port Corner and Wing

Transitional Clips

 (during changes in warp length)

Results Presentations

Net Mensuration Data (Lisa Hendrickson)

- Video Images (Henry Milliken)
 - Sampling of video images from each tow
 - Transition from previous to new warp length (when available)
 - Roller sweep
 - Port and starboard wings